

attached #4

Sheet 1 of 8

SUBSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF-COMMERCE PATENT AND TRADEMARK OFFICE		Attorney Docket No.		00786/351004	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				Serial No.		09/205,658	
				Applicant		Gary Ruvkun, et al.	
				Filing Date		December 3 1998	
				Group		1633	
U.S. PATENTS							
Examiner's Initials	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (If Appropriate)	
SN	5,196,333	03/23/93	Chalfie et al.	435	369	5/30/90	
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION							
	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation (Yes/No)	
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)							
SN	Arpagaus, Vertebrate insulin induces diapause termination in <i>Pieris brassicae</i> pupae, <i>Roux's Arch. Dev. Biol.</i> , 196:527-530 (1987).						
SN	Baker et al., A novel mesoderm inducer, <i>Madr2</i> , functions in the activin signal transduction pathway, <i>Genes and Development</i> , 10:1880-1889 (1996).						
SN	Bargmann et al., Control of Larval Development by Chemosensory Neurons in <i>Caenorhabditis elegans</i> , <i>Science</i> , 251:1243-1246 (1991).						
SN	Brown-Borg et al., Dwarf mice and the ageing process, <i>Nature</i> , 384:33 (1996).						
SN	Brüning et al., Development of a Novel Polygenic Model of NIDDM in Mice Heterozygous for <i>IR</i> and <i>IRS-1</i> Null Alleles, <i>Cell</i> , 88:561-572 (1997).						
SN	Coleman, Obesity Genes: Beneficial Effects in Heterozygous Mice, <i>Science</i> , 203:663-665 (1979).						
SN	Dorman et al., The <i>age-1</i> and <i>daf-2</i> Genes Function in a Common Pathway to Control the Lifespan of <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 141:1399-1406 (1995).						
SN	Ebina et al., The Human Insulin Receptor cDNA: The Structural Basis for Hormone-Activated Transmembrane Signalling, <i>Cell</i> , 40:747-758 (1985).						
SN	Estevez et al., The <i>daf-4</i> gene encodes a bone morphogenetic protein receptor controlling <i>C. elegans</i> dauer larva development, <i>Nature</i> , 365:644-649 (1993).						
SN	Ewbank et al., Structural and Functional Conservation of the <i>Caenorhabditis elegans</i> Timing Gene <i>clk-1</i> , <i>Science</i> , 275:980-983 (1997).						
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.							

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Attorney Docket No. 00786/351004  Serial No. 09/205,658  Applicant Gary Ruvkun, et al.  Filing Date December 3, 1998  Group 1633
(37 CFR §1.98(b))		
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)		
SM	Fernandez et al., The <i>Drosophila</i> insulin receptor homolog: a gene essential for embryonic development encodes two receptor isoforms with different signaling potential, <i>EMBO J.</i> , 14:3373-3384 (1995).	
SM	Galili et al., "Fusion of a fork head domain gene to PAX3 in the Solid Tumour Alveolar Rhabdomyosarcoma," <i>Nat. Genet.</i> 5:230-235 (1993)	
SM	Georgi et al., <i>daf-1</i> , a <i>C. elegans</i> Gene Controlling Dauer Larva Development, Encodes a Novel Receptor Protein Kinase, <i>Cell</i> , 61:635-645 (1990).	
SM	Golden et al., The <i>Caenorhabditis elegans</i> Dauer Larva: Developmental Effects of Pheromone, Food, and Temperature, <i>Developmental Biology</i> , 102:368-378 (1984).	
SM	Golden et al., A pheromone-induced developmental switch in <i>Caenorhabditis elegans</i> : Temperature-sensitive mutants reveal a wild-type temperature-dependent process, <i>Proc. Natl. Proc. Acad. Sci. U.S.A.</i> , 81:819-823 (1984).	
SM	Gottlieb et al., <i>daf-2</i> , <i>daf-16</i> and <i>daf-23</i> : Genetically Interacting Genes Controlling Dauer Formation in <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 137:107-120 (1994).	
SM	Graff et al., Xenopus Mad Proteins Transduce Distinct Subsets of Signals for the TGF $\beta$ Superfamily, <i>Cell</i> , 85:479-487 (1996).	
SM	Green et al., Responses of Embryonic Xenopus Cells to Activin and FGF Are Separated by Multiple Dose Thresholds and Correspond to Distinct Axes of the Mesoderm, <i>Cell</i> , 71:731-739 (1992).	
SM	Hahn et al., <i>DPC4</i> , A Candidate Tumor Suppressor Gene at Human Chromosome 18q21.1, <i>Science</i> , 271:350-353 (1996).	
SM	Hemmings, Akt Signaling: Linking Membrane Events to Life and Death Decisions, <i>Science</i> , 275:628-630 (1997).	
SM	Hetru et al., Isolation and structural characterization of an insulin-related molecule, a predominant neuropeptide from <i>locusta migratoria</i> , <i>Eur. J. Biochem.</i> , 201:495-499 (1991).	
SM	Hoodless et al., MADR1, a MAD-Related Protein That Functions in BMP2 Signaling Pathways, <i>Cell</i> , 85:489-500 (1996).	
SM	Hotamisligil et al., Adipose Expression of Tumor Necrosis Factor- $\alpha$ : Direct Role in Obesity-Linked Insulin Resistance, <i>Science</i> , 259:87-91 (1993).	
SM	Hubbard et al., Crystal structure of the tyrosine kinase domain of the human insulin receptor, <i>Nature</i> , 372:746-754 (1994).	
SM	Jonas et al., Regulation by insulin of a unique neuronal Ca <sup>2+</sup> pool and of neuropeptide secretion, <i>Nature</i> , 385:343-346 (1997).	
EXAMINER		DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.		


SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE		Attorney Docket No.	00786/351004
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No.	09/205,658
		Applicant	Gary Ruvkun, et al.
		Filing Date	December 3, 1998
		Group	1633
(37 CFR §1.98(b))			
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)			
SK	Kahn et al., Genetics of Non-Insulin-Dependent (Type-II) Diabetes Mellitus, <i>Annu. Rev. Med.</i> , 47:509-531 (1996).		
SK	Kawakami et al., Molecular Cloning of the <i>Bombyx mori</i> Prothoracicotropic Hormone, <i>Science</i> , 247:1333-1335 (1990).		
SK	Kenyon et al., A <i>C. elegans</i> mutant that lives twice as long as wild type, <i>Nature</i> , 366:461-464 (1993).		
SK	Kim et al., Detection of mutations in the insulin receptor gene in patients with insulin resistance by analysis of single-stranded conformational polymorphisms, <i>Diabetologia</i> , 35:261-266 (1992).		
SK	Kimble, Alterations in Cell Lineage following Laser Ablation of Cells in the Somatic Gonad of <i>Caenorhabditis elegans</i> , <i>Developmental Biology</i> , 87:286-300 (1981).		
SK	Kimura et al., "daf-2, an Insulin Receptor-Like Gene That Regulates Longevity and Diapause in <i>Caenorhabditis elegans</i> ," <i>Science</i> 277:942-946 (1997)		
SK	Klass, A Method for the Isolation of Longevity Mutants in the Nematode <i>Caenorhabditis elegans</i> and Initial Results, <i>Mechanisms of Ageing and Dev.</i> , 22:279-286 (1983).		
SK	Krause, Transcription and Translation, Chapter 20, <i>Methods Cell Biol.</i> , Academic Press, San Diego, CA, 48:483-512 (1995).		
SK	Krawczak et al., The human gene mutation database, <i>Trends Genet</i> 13:121-2 (1997).		
SK	Lagna et al., Partnership between DPC4 and SMAD proteins in TGF- $\beta$ signalling pathways, <i>Nature</i> , 383:832-836 (1996).		
SK	Larsen et al., Genes that Regulate Both Development and Longevity in <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 139:1567-1583 (1995).		
SK	Lin et al., "daf-16: An HNF-3/Forkhead Family Member That Can Function to Double the Life-Span of <i>Caenorhabditis elegans</i> ," <i>Science</i> 278:1319-1322 (1997)		
SK	Liu et al., A human Mad protein acting as a BMP-regulated transcriptional activator, <i>Nature</i> , 381:620-623 (1996).		
SK	Lonnqvist et al., Overexpression of the obese ( <i>ob</i> ) gene in adipose tissue of human obese subjects, <i>Nat. Med.</i> , 1:950-953 (1995).		
SK	Macias-Silva et al., MADR2 Is a Substrate of the TGF $\beta$ Receptor and Its Phosphorylation Is Required for Nuclear Accumulation and Signaling, <i>Cell</i> , 87:1215-1224 (1996).		
EXAMINER		DATE CONSIDERED	
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.			

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE		Attorney Docket No.	00786/351004
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No.	09/205,658
		Applicant	Gary Ruvkun, et al.
		Filing Date	December 3, 1998
		Group	1633
(37 CFR §1.98(b))			
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)			
gn	Malone et al., A Screen for Nonconditional Dauer-Constitutive Mutations in <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 136:879-886 (1994).		
gn	Mathews et al., Regulation of insulin-like growth factor I gene expression by growth hormone, <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 83:9343-9347 (1986).		
gn	McCombie et al., " <i>Caenorhabditis elegans</i> Expressed Sequence Tags Identify Gene Families and Potential Disease Gene Homologues," <i>Nature Genetics</i> 1:124-131 (1992)		
gn	Mello et al., Efficient gene transfer in <i>C. elegans</i> : extrachromosomal maintenance and integration of transforming sequences, <i>Embo J.</i> , 10:3959-3970 (1991).		
gn	Murakami et al., "A Genetic Pathway Conferring Life Extension and Resistance to UV Stress in <i>Caenorhabditis elegans</i> ," <i>Genetics</i> 143:1207-1218 (1996)		
gn	Nagasawa et al., Amino-Terminal Amino Acid Sequence of the Silkworm Prothoracicotropic Hormone: Homology with Insulin, <i>Science</i> , 266:1344-1345 (1984).		
gn	Ogg et al., The Fork head transcription factor DAF-16 transduces insulin-like metabolic and longevity signals in <i>C. elegans</i> , <i>Nature</i> , 389:994-999 (1997).		
gn	O'Riordan et al., Intermediary Metabolism in the Dauer Larva of the Nematode <i>Caenorhabditis Elegans</i> -II. The Glyoxylate Cycle and Fatty-Acid Oxidation, <i>Comp. Biochem. &amp; Physiol.</i> , 95B:125-130 (1990).		
gn	O'Riordan et al., Intermediary Metabolism in the Dauer Larva of the Nematode <i>Caenorhabditis Elegans</i> -I. Glycolysis, Gluconeogenesis, Oxidative Phosphorylation and the Tricarboxylic Acid Cycle, <i>Comp. Biochem. &amp; Physiol.</i> , 92B:233-238 (1989).		
gn	Popham et al., Aspects of the fine structure of the dauer larva of the nematode <i>Caenorhabditis elegans</i> , <i>Can. J. Zool.</i> , 57:794-800 (1979).		
gn	Reinhardt et al., Selective Coexpression of Insulin Receptor-related Receptor (IRR) and TRK in NGF-Sensitive Neurons, <i>J. Neurosci.</i> , 14:4674-4683 (1994).		
gn	Ren et al., Control of <i>C. elegans</i> Larval Development by Neuronal Expression of a TGF- $\beta$ Homolog, <i>Science</i> , 274:1389-1391 (1996).		
gn	Riddle et al., Interacting genes in nematode dauer larva formation, <i>Nature</i> , 290:668-671 (1981).		
gn	Riddle, D. et al., Genetic and Environmental Regulation of Dauer Larva Development, <i>C. elegans II</i> , pp. 739-768 (1997).		
EXAMINER		DATE CONSIDERED	
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.			

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR §1.98(b))		Attorney Docket No. 00786/351004 Serial No. 09/205,658 Applicant Gary Ruvkun, et al. Filing Date December 3, 1998 Group 1633
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)		
SR	Roovers et al., Characterization of a putative molluscan insulin-related peptide receptor, <i>Gene</i> , 162:181-188 (1995).	
GR	Savage et al., <i>Caenorhabditis elegans</i> genes <i>sma-2</i> , <i>sma-3</i> , and <i>sma-4</i> define a conserved family of transforming growth factor $\beta$ pathway components, <i>PNAS</i> , 93:790-794 (1996).	
GR	Schackwitz et al., Chemosensory neurons function in parallel to mediate a pheromone response in <i>C. elegans</i> , <i>Neuron</i> , 17:719-728 (1996).	
GR	Shier et al., Primary structure of a putative receptor for a ligand of the insulin family, <i>J. Biol. Chem.</i> , 264:14605-14608 (1989).	
GR	Songyang et al., SH2 domains recognize specific phosphopeptide sequences, <i>Cell</i> , 72:767-778 (1993).	
GR	Swanson et al., Critical periods in the development of the <i>Caenorhabditis elegans</i> dauer larva, <i>Developmental Biology</i> , 84:27-40 (1981).	
GR	Taylor, Lilly Lecture: Molecular mechanisms of insulin resistance, <i>Diabetes</i> , 41:1473-1490 (1992).	
GR	Thomas et al., Evidence for parallel processing of sensory information controlling dauer formation in <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 134:1105-1117 (1993).	
GR	Ullrich et al., Human insulin receptor and its relationship to the tyrosine kinase family of oncogenes, <i>Nature</i> , 313:756-761 (1985).	
GR	Ullrich et al., Insulin-like growth factor I receptor primary structure: comparison with insulin receptor suggests structural determinants that define functional specificity, <i>EMBO J.</i> , 5:2503-2512 (1986).	
GR	Vowels et al., Genetic analysis of chemosensory control of dauer formation in <i>Caenorhabditis elegans</i> , <i>Genetics</i> , 130:105-123 (1992).	
GR	Wadsworth et al., Developmental regulation of energy metabolism in <i>Caenorhabditis elegans</i> , <i>Dev. Biol.</i> , 132:167-173 (1989).	
GR	Waterston et al., "A Survey of expressed genes in <i>Caenorhabditis elegans</i> ," <i>Nature Gen</i> 1:114-123 (1992)	
GR	White et al., The Insulin Signaling System, <i>J. Biol. Chem.</i> , 269:1-4 (1994).	
GR	Wrana et al., MAD-related proteins in TGF- $\beta$ signalling, <i>Trends Genet.</i> , 12:493-496 (1996).	
GR	Yoshimasa et al., Effects of Amino Acid Replacements within the Tetrabasic Cleavage Site on the Processing of the Human Insulin Receptor Precursor Expressed in Chinese Hamster Ovary Cells, <i>J. Biol. Chem.</i> , 265:17230-17237 (1990).	
GR	Zhang et al., Receptor-associated Mad homologues synergize as effectors of the TGF- $\beta$ response, <i>Nature</i> , 383:168-172 (1996).	
EXAMINER		DATE CONSIDERED
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this		



SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE		Attorney Docket No.	00786/351004
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Serial No.	09/205,658
		Applicant	Gary Ruvkun, et al.
		Filing Date	December 3, 1998
(37 CFR §1.98(b))		Group	1633
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)			
SN	Allander, et al., Hepatic nuclear factor 3 and high mobility group I/4 proteins bind the insulin response element of the insulin-like growth factor-binding protein-1 promoter. <i>Endocrinology</i> , 138:4291-300 (1997).		
SN	Ahren et al., Neuropeptidergic versus cholinergic and adrenergic regulation of islet hormone secretion. <i>Diabetologia</i> 29:827-836 (1986).		
SN	Borkhardt et al., Cloning and characterization of AFX, the gene that fuses to MLL in acute leukemias with a t(X;11) (q13; q23). <i>Oncogene</i> 14, 195-202 (1997).		
SN	Boschero, et al., Oxotremorine-m potentiation of glucose-induced insulin release from rat islets involves M <sub>3</sub> muscarinic receptors. <i>Am. J. Physiol.</i> 268:E336-E342, (1995).		
SN	Hillion, et al., A novel partner of the MLL gene in t(6;11)(q21;q23), defines a forkhead transcriptional factor subfamily, <i>Blood</i> , 90:3714-9 (1997).		
SN	Hobert, et al., regulation of interneuron function in the <i>C. elegans</i> thermoregulatory pathway by the <i>ttx-3</i> LIM homeobox gene. <i>Neuron</i> 19:345-357 (1997).		
SN	Lai et al., HNG-3A, a hepatocyte-enriched transcription factor of novel structure is regulated transcriptionally, <i>Genes Dev.</i> 4:1427-1436 (1990).		
SN	Latifpour et al., Effect of insulin and dietary myoinositol on muscarinic receptor alterations in diabetic rat bladder. <i>J. Urol.</i> 147:760-763 (1992).		
SN	Lewis et al., The genetics of levamisole resistance in the nematode <i>Caenorhabditis elegans</i> . <i>Genetics</i> 95:905-928 (1980).		
SN	Lewis et al., Levamisole-resistant mutants of the nematode <i>Caenorhabditis elegans</i> appear to lack pharmacological acetylcholine receptors. <i>Neuroscience</i> 5:967-989 (1980).		
SN	Li et al., TEP1, encoded by a candidate tumor suppressor locus, is a novel protein tyrosine phosphatase regulated by transforming growth factor beta, <i>Cancer Res.</i> , 57:2124-2129 (1997).		
SN	Li et al., PTEN, a putative protein tyrosine phosphatase gene mutated in human brain, breast, and prostate cancer, <i>Science</i> 275:1943-1947 (1997).		
SN	Maehama et al., The tumor suppressor, PTEN/MMAC1, dephosphorylates the lipid second messenger, phosphatidylinositol 3,4,5-trisphosphate, <i>J. Biol. Chem.</i> , 273:13375-13378 (1998).		
SN	Miller, R. E., Pancreatic neuroendocrinology: peripheral neural mechanisms in the regulation of the islets of langerhans*. <i>Endocr. Rev.</i> 2:471-494 (1981).		
SN	Morris et al., A phosphatidylinositol-3-OH kinase family member regulating longevity and diapause in <i>Caenorhabditis elegans</i> . <i>Nature</i> 382:536-539 (1996).		
EXAMINER		DATE CONSIDERED	
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.			

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Attorney Docket No. 00786/351004  Serial No. 09/205,658  Applicant Gary Ruvkun, et al.  Filing Date December 3, 1998  Group 1633
(37 CFR §1.98(b))		
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)		
SL	O'Brien et al., Hepatic nuclear factor-3 and hormone-regulated expression of the phosphoenolpyruvate carboxykinase and insulin-like growth factor-binding protein 1 genes. <i>Mol. Cell Biol.</i> 15:1747-1758 (1995).	
SL	Paradis et al., <i>Caenorhabditis elegans</i> Akt/PKB transduces insulin receptor-like signals from AGE-1 PI3 kinase to the DAF-16 transcription factor. <i>Genes Dev.</i> 12: 2488-2498 (1998).	
SL	Parry et al., Cloning and characterization of the t(X;11) breakpoint from a leukemic cell line identify a new member to the forkhead gene family. <i>Genes Chromosomes Cancer</i> 11:79-84 (1994).	
SL	Patterson et al., The DAF-3 Smad protein antagonizes TGF-B-related receptor signaling in the <i>Caenorhabditis elegans</i> dauer pathway. <i>Genes Dev.</i> 11:2679-2690 (1997).	
SL	Stambolic et al., Negative regulation of PKB/Akt-dependent cell survival by the tumor suppressor PTEN. <i>Cell</i> 95:29-39 (1998).	
SL	Steck et al., Identification of a candidate number tumour suppressor gene, MMAC1, at chromosome 10q23.3 that is mutated in multiple advanced cancers. <i>Nat. Genet.</i> 15:356-362 (1997).	
SL	Unterman et al., Hepatocyte nuclear factor-3 (HNF-3) binds to the insulin response sequence in the IGF binding protein-1 (IGFBP-1) promoter and enhances promoter function. <i>Biochem. Biophys. Res. Commun.</i> 203:1835-41 (1994).	
SL	Weinkove et al., p60 is an adaptor for the <i>Drosophila</i> phosphoinositide 3-kinase, Dp 110. <i>J. Biol. Chem.</i> 272:14606-14610 (1997).	
SL	Yamamura et al., Muscarinic Cholinergic Binding in Rat Brain. <i>Proc. Natl. Acad. Sci.</i> , 1725-1729	
EXAMINER		DATE CONSIDERED 5/20/99
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.		